5.7 Reach 5

Surveys of Reach 5 (RM 11.2 – 5.7) were completed on September 30, 2003. Reach 5 is highly affected by tidal influences with observable reverse flow from station 15 downstream. The reach begins with a series of broad meanders within a floodplain that still has substantial numbers of black cottonwoods in the riparian zone. Woody debris is subsequently more common. The downstream portion of the reach is highly urbanized, and appears to be substantially straightened beyond station 18. Channel width increases dramatically from about 25 m at the upstream end until it reaches 80 m near station 28. The downstream end of Reach 5 was actively being fished using large nets at the time of the assessment (Photo 5-15) preventing direct access to some areas. Reach 5 contained 2 docks, one at Station 16 and one at Station 29.

Table 5-5 summarizes the data collected in Reach 5. The total length of this reach was 5.5 miles (8.9 km) and the dominant habitat type was glides. The mean OHWM width was 50 m, and the mean wetted width was 46 m. Overall, there were six pools in this reach, including three large and three small pools, for an average of 1.1 pools per mile for all pools and a total pool frequency of 29 CW/pool (Figure 5-30). The dominant forming feature of the two large pools in Reach 5 was riprap. There were no existing or potential gravel storage areas in Reach 5.

Figure 5-31 shows the typical vegetative characteristics in Reach 5. Overhanging vegetation ranged from 0 to 50 percent, with a median overhang for the reach of 2 percent. Overall, vegetation in Reach 5 was of low to medium quality and dominated by invasive vegetation. In addition, the reach contains several unvegetated mudflats and patches of low and high salt marsh (Photo 5-16). The median canopy cover was 44 percent.

There were 202 pieces of wood identified in Reach 5. Large logs were the most numerous (90) with medium logs and rootwads comprising most of the remainder (70 and 41 pieces, respectively) (Figure 5-32). There was one key piece of wood in the reach. This was the only key piece identified below Reach 2. No logjams were found in this reach.

Figures 5-33 and 5-34 show the extent and type of shoreline armoring present in the upper and lower portions of Reach 5, respectively. As with most of the rest of the survey area,

riprap was the dominant armoring type (Photo 5-17). A tire revetment is located at Station 25 (Photo 5-18). Two potential restoration opportunities were identified in Reach 5 (Figure 5-35). One opportunity at RM 8.3 would be to remove an invasive, non-native species of bamboo that grows along the right bank. The other potential restoration opportunity is to remove invasive vegetation and restore the understory vegetation on both banks between RM 7.15 and 7.95.

Photo 5-15. Fishing Nets at Reach 5, Station 27 of the Lower Green River.

Photo 5-16. Salt marsh and mud flat at low tide on an inside bend in Reach 5, Station 15 of the Lower Green River.

Photo 5-17. New riprap at a U.S. Army Corps of Engineers habitat restoration project on the right bank in Reach 5, Station 15 of the Lower Green River.

Photo 5-18. Tire revetment (background) on the left bank in Reach 5, Station 25 of the Lower Green River.

Table 5-5
Instream Habitat Summary Statistics for Reach 5

Parameter	Result
Location	RM 11.2 to 5.7
Reach length	8.9 km (5.5 miles)
River discharge during surveys[1]	200 to 290 cfs
Number of stations	30
Number of stations at glide habitats	26
Number of stations at pool habitats	4
Number of stations at riffle habitats	0
Number of stations at run habitats	0
Average OHWM width (used in CW calculations)	50 m
Average wetted width	46 m
Total number of pools (large and small[2])	6
Total pool frequency (large and small)	29 CW/pool
Total number of pools per mile (large and small)	1.1
Number of large pools	3
Large pool frequency	59 CW/pool
Number of large pools per mile	0.5
Percent large pools by length	5%
Percent large pools by area[3]	3%
Dominant large pool forming factor	Riprap
Large Pools formed by wood	0
Number of small pools[2]	3
Small pool frequency	59 CW/pool
Number of small pools per mile	0.5
Total wood pieces (logs and rootwads)	202
Total wood pieces frequency[1]	1.1 pieces per CW
Total number of wood pieces per mile	36.7 pieces per mile
Number of key pieces (with and without rootwads)	1 with, 0 without
Key piece frequency[1]	0.01 pieces per CW
Number of key pieces per mile	0.2
Number of large wood pieces (with and without rootwads)	39 with, 51 without
Large wood pieces frequency	0.5 pieces per CW
Number of large wood pieces per mile	16.4
Number of medium wood pieces (with and without rootwads)	8 with, 62 without
Medium wood pieces frequency	0.4 pieces per CW
Number of medium wood pieces per mile	12.7
Number of rootwads	41
Total number of logjams	0
Average percent of visible armoring for both banks	35%
Dominant riparian vegetation type	Invasive
Range of percent overhanging vegetation for both banks	0% to 50%
Median overhanging vegetation for both banks	2%
Range of percent canopy cover	5% to 59%
Median canopy cover	44%
Number of existing and potential gravel storage areas	0 existing, 0 potential

Notes:
1-Flow based on USGS Gauge #12113000, Green River near Auburn, Washington
2-Small pools are those covering 25 percent to 50 percent of wetted width.
3-Area in reach calculated as reach length times average OHWM width.

Figure 5-30

Fig 5-31

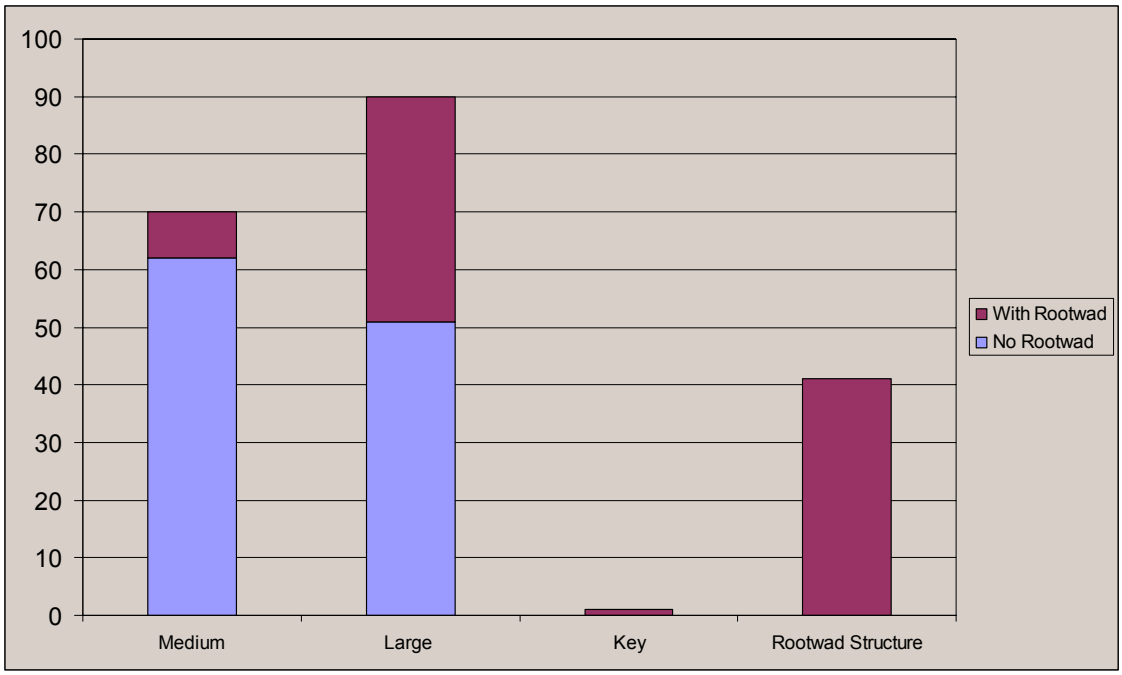

Figure 5-32. Numbers of wood pieces and distribution of size and type in Reach 5.

Fig 5-33

Fig5-34

Figure 5-35